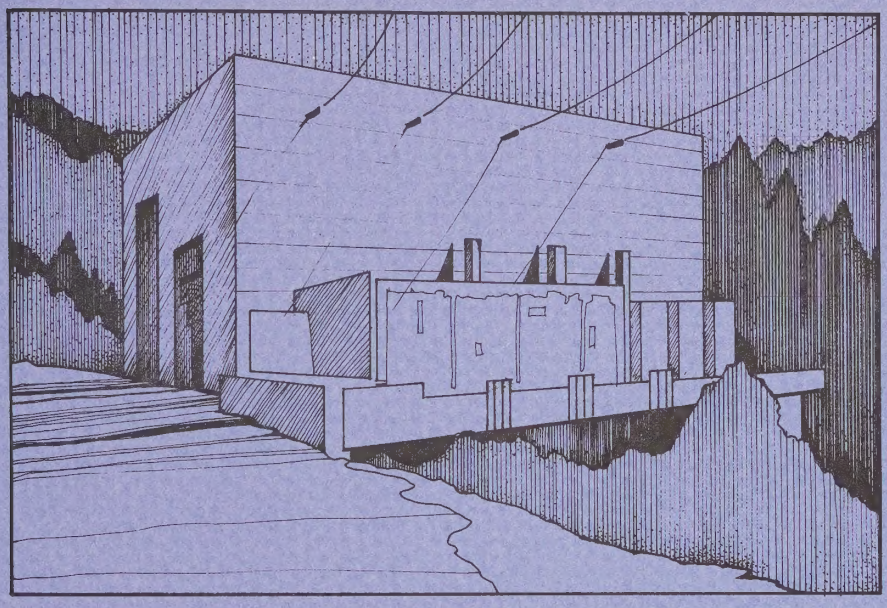
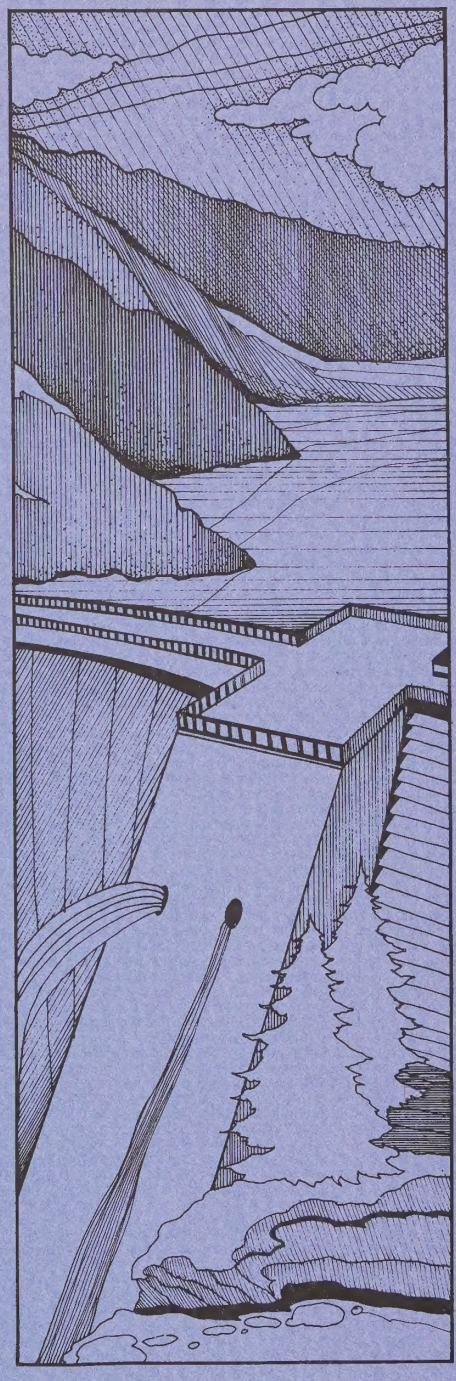
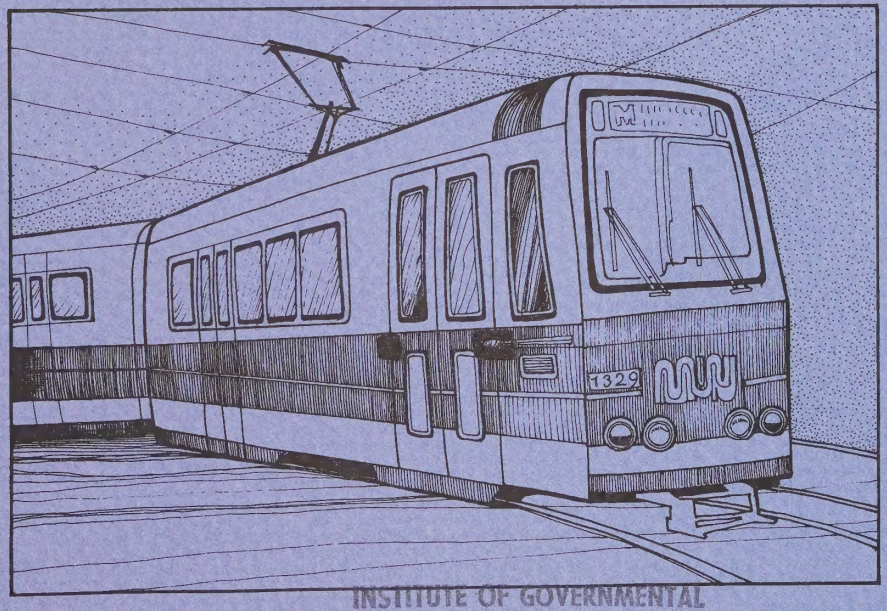
A2718.2
1983/84
IGSL

City and County of San Francisco





Public Utilities Commission



INSTITUTE OF GOVERNMENTAL
STUDIES LIBRARY

MAR 18 1987

UNIVERSITY OF CALIFORNIA

ANNUAL REPORT
1983-1984

A2718.2
1983/84

INSTITUTE OF GOVERNMENTAL STUDIES LIBRARY
109 PHILOSOPHY HALL
UNIVERSITY OF CALIFORNIA
BERKELEY, CA 94720

PUBLIC UTILITIES COMMISSION
CITY AND COUNTY OF SAN FRANCISCO

DIANNE FEINSTEIN, Mayor
RUDOLF NOTHENBERG, General Manager

SAN FRANCISCO
MUNICIPAL RAILWAY

HETCH HETCHY
WATER AND POWER

SAN FRANCISCO
WATER DEPARTMENT

The Honorable
Public Utilities Commission
City and County of San Francisco

As required by the City Charter sections 3.500 and 3.501 this annual report for Fiscal Year 1983/1984, is submitted.

Seeking always to provide the highest level of services to our patrons, the Municipal Railway, San Francisco Water Department and Hetch Hetchy Project, supported by the several PUC bureaus, do so effectively and well within the financial sources made available.

Fiscal Year 1983/1984 was characterized by significant accomplishments in efficiency and effectiveness by the Commission, the operating departments and by each of the supporting bureaus.

Fiscal Year 1983/1984 saw new managers being put to the test by increasing service levels with effective and efficient use of available resources.

This annual report and accompanying financial statements demonstrate their successes in these tasks and provide a preview of future accomplishments scheduled for ensuing years.

We pay tribute here to the thousands of dedicated PUC municipal employees, past and present, in the three operating departments and six support bureaus, acknowledging their responsibility for the excellent performance detailed in this report.

To the rank and file employees who operate San Francisco's transit system, produce and deliver electrical energy and quality drinking water from the High Sierra and suburban watershed, we acknowledge a debt of gratitude.

Rudolf Nothenberg
General Manager
Public Utilities Commission

287 CITY HALL · SAN FRANCISCO, CALIFORNIA 94102 · (415) 558-4986

CITY AND COUNTY OF SAN FRANCISCO

Dianne Feinstein, Mayor of San Francisco

COMMISSIONERS

Nancy C. Lenvin, President
John M. Sanger, Vice President
H. Welton Flynn
Joseph F. Barletta
Louis J. Giraudo

DEPARTMENTS

Hetch Hetchy Project

Municipal Railway

Water Department

BUREAUS

Energy Conservation

Engineering and Construction Management

Financial Management and Performance Monitoring

Information Systems

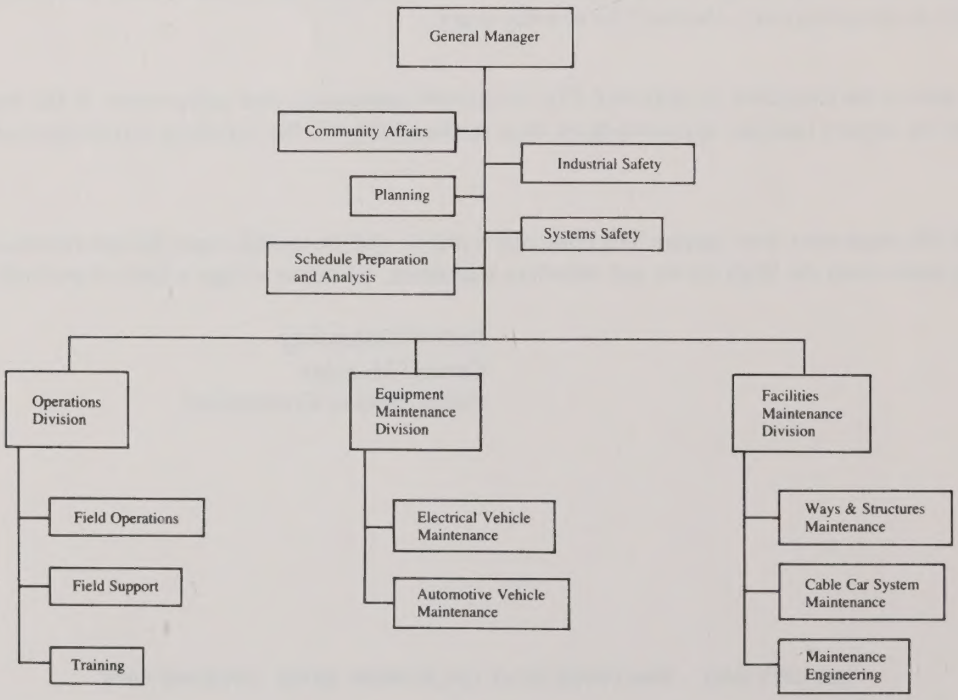
Personnel and Training

Claims and Contracts

Rudolf Nothenberg
General Manager

Romain A. Boldridge
Secretary

MUNICIPAL RAILWAY



MUNICIPAL RAILWAY OF SAN FRANCISCO

Harold Geissenheimer, General Manager

Organization

Reporting to the PUC General Manager, the MUNI General Manager directs the overall operation. Each MUNI division - Operations, Equipment Maintenance and Facilities Maintenance - has a Deputy General Manager reporting to the MUNI General Manager.

Additional functions reporting directly to the General Manager include:

- Schedules and Traffic - to collect service data and prepare schedules.
- Community Affairs - to monitor public correspondence, provide telephone information service and distribute maps.
- Planning - to perform service planning and related duties.
- System and Industrial safety.

These functions have a total of 83 staff positions and a FY 1983-84 budget of $32.95 million.

The Operations Division determines how many operators are required to provide scheduled services, trains the operators and manages all support services required to deliver scheduled service, manages all operators and vehicles which are in revenue service. In FY 83/84 there were 2,441 approved positions in the division with a budget of $89.65 million. It has three departments:

- Field support ensures efficient operator use and assignments. This department is responsible for operators prior to revenue service.
- Field Operations supervises revenue service.
- Training trains and retrains operators to meet scheduled needs and maintain trained operator quality.

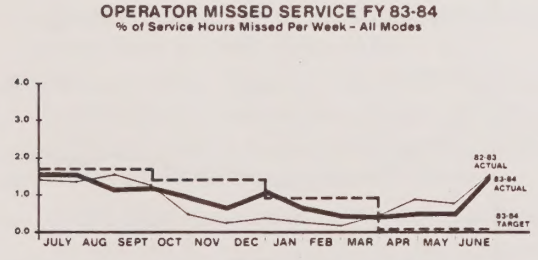
Delivery of 149 of these rehabilitated GMC buses is complete.

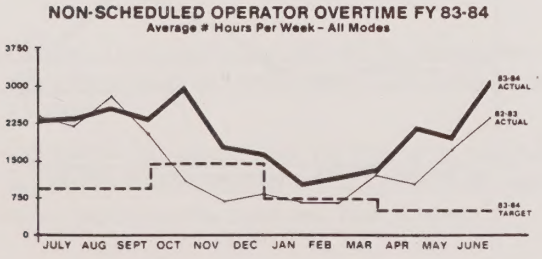
The Equipment Maintenance Division provides the number of vehicles required to produce scheduled service. There are 831 positions in the division with an operating budget of $47.4 million. It consists of two departments.

- Electrical Vehicle Maintenance provides trolley coaches, LRV's, cable cars and street cars to meet scheduled service requirements.
- Automotive Vehicle Maintenance provides motor coaches for scheduled service, and non-revenue vehicles supporting scheduled service delivery.

The Facilities Maintenance Division maintains fixed facilities. For FY 83/84, this division had 298 approved positions and an annual budget of $16.1 million. It consists of three departments.

- Ways and Structures maintains buildings, yards, grounds, stationary equipment, tracks and waysides





180 of these new Flyer standard diesel buses have replaced diesels built in 1969.

Route #19 - Polk Street has been extended to the Navy Yard of Hunters Point.

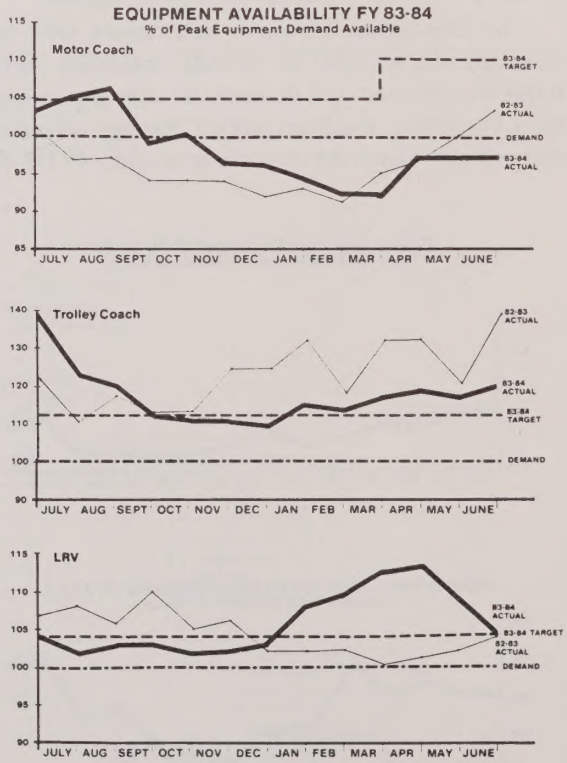
- Cable Car System provides and maintains the cable car propulsion and transport systems.
- Maintenance Engineering supports ways and structures at the Cable Car system with professional civil and mechanical engineering services.

Over the past year, MUNI has instituted service modifications addressing particular deficiencies in service design and delivery. These modifications, route and schedule revisions, improved regional connections and more efficient operation of the Metro system.

Muni Metro Service:

Muni converted the last of its PCC (streetcar) operation to light rail vehicle (LRV) service in November 1982. The added capacity of the LRV's has increased ridership on MUNI's five rail lines by 23% including a 60% increase during peak periods. Productivity has been improved by trainlining multi-car LRV trains. MUNI can now operate two and three car trains in the subway with one operator. Operators formerly riding in the second and third cars can now layover at the subway portals and be available for operating outbound cars as they leave the subway. Trainlining increases productivity by maximizing the number of multi-car trains in the subway. The number of trains operating in the subway at peak is limited by train space requirements and the turnaround time at Embarcadero Station.

Implementing phase 3 of MUNI's service design modifications in August consisted of 15 route structure as a grid network, implementing new direct connections bet-



(Left) 100 of these new High Capacity M.A.N. articulated diesel buses have increased passenger capacity on M's heaviest routes, including Geary Street and the Downtown loop. (Below) Army Street storage facility for the new M.A.N. articulated diesels.

ween the several City districts, improving community service in the Mission District with increased service along Potrero Avenue, direct service between Bernal Heights and 24the Street BART Station, a radial route on to BART, and converting the hilly 24-Divisadero route to more efficient trolley coach service.

This past year has been a one of rapid change and improvement for the Municipal Railway. Muni successfully carried out its assignments in serving its passengers and the citizens of the City and County of San Francisco.

During FY 1983/84, Muni has:

Completed the rehabilitation of the Cable Car System and reinstituted full service on the three cable car routes by June 21, 1984.

Placed in service as part of a long-range Equipment Procurement Plan the first of a new fleet of vehicles to provide more dependable and comfortable service including:

180 new "Flyer" standard diesel buses to replace diesels built in 1969. (May 1984).

100 new High Capacity "M.A.N." articulated diesel buses to provide increased passenger capacity on Muni's heavist routes, including Geary Street and the Downtown Loop.

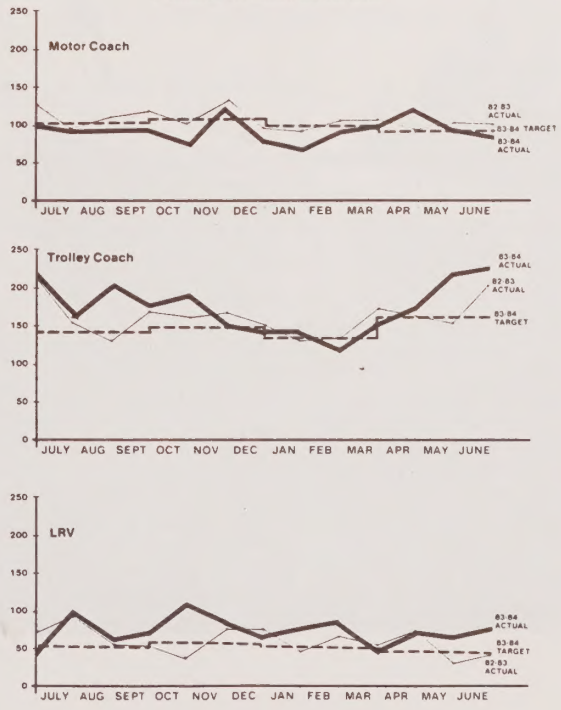
30 new Light Rail Cars to increase Metro capacity. The number of cars used during the peak hours increased from 82 to 92 (December 1983).

Completed delivery of 149 rehabilitated GMC buses.

Opened a new interim facility for the maintenance of articulated buses at Army and Third Streets. (May 30,1984).

Completed site acquisition as part of a long-range Facility Plan and started design of a permanent maintenance facility at Harrison and 16th Streets.

ACCIDENT RATES FY 83-84
Incidents Per Million Service Miles



Initiated service improvements and route changes to include:

Electrification of Route 24 - Divisadero (August 1983).

Through route 49 trolley coach service between Van Ness and Mission Street (August 1983).

Started installing a new radio monitoring vehicle location system for both operational control and security or emergency response.

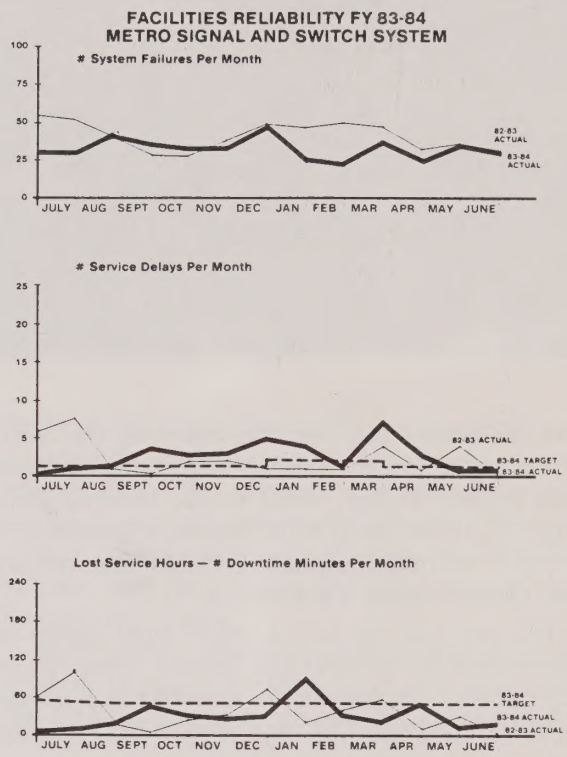
Completed installation of 75 security cameras on both trolley coaches and diesel buses.

In conjunction with CALTRANS, implemented expanded shuttle service between downtown and the CALTRAIN station; using leased buses. (May 1,1984).

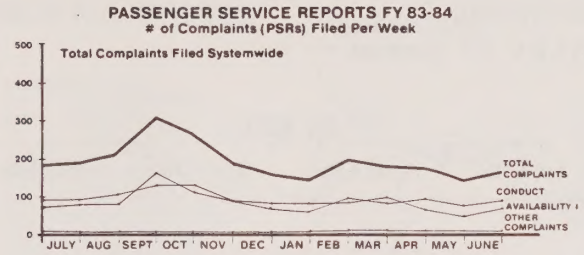
Started engineering and installing new trolley coach overhead on Market Street to increase capacity and provide more dependable service. Special effort is being made to make the overhead lines as visually unobtrusive and to reduce the number of poles by using the Path of Gold Light poles.

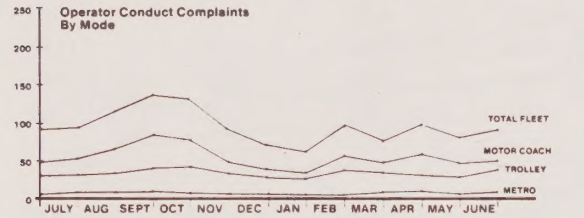
Operated the Historical Trolley Festival on Market Street for the second successful year. New car acquisitions include cars from Vera Cruz, Mexico, and Milan, Italy. Plans are being developed to make this program permanent. (June 1984).

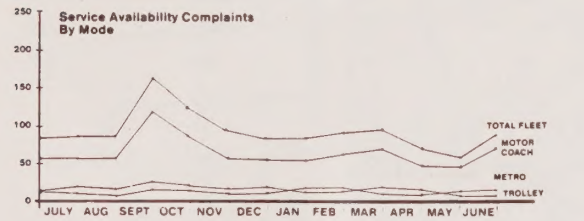
Completed a campaign to install clear glass window in 345 trolley coaches to replace clouded and deteriorated plastic windows. (February 1984).

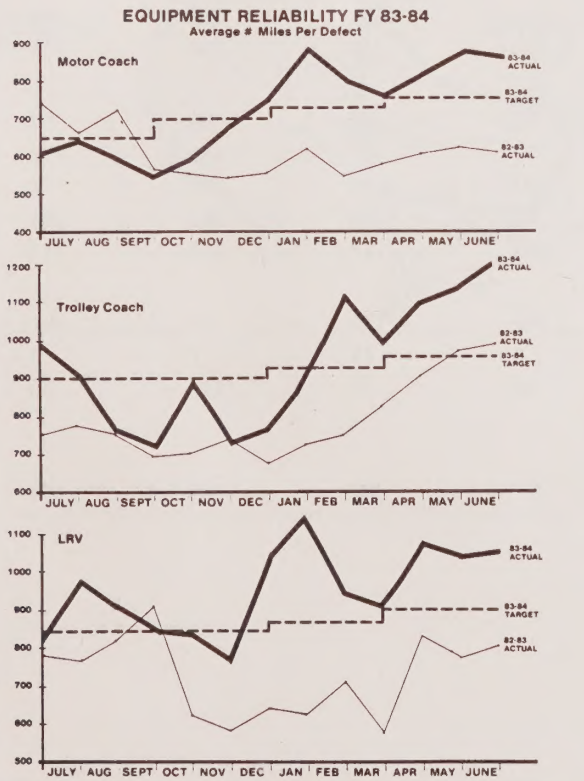


30 new Light Rail Cars to increase Metro capacity.









Storage yard of the new interim facility at Army and Third Streets for maintenance of articulated diesel coaches.

The San Francisco Municipal Railway Improvement Corporation (SFMRIC) is a nonprofit, nonstock, corporation established to provide financial assistance on behalf of the City and County of San Francisco for the modernization of the Municipal Railway by purchasing equipment and improving facilities.

SFMRIC is authorized to issue bonds to fund each of its programs under separate indentures. The Transit Equipment Program bonds, for the acquisition of transit equipment, are issued as supplements to an indenture dated January 15, 1969. The Transit Improvement Program bonds, for the acquisition and construction of transit facilities, are issued as supplements to an indenture dated December 1,1971.

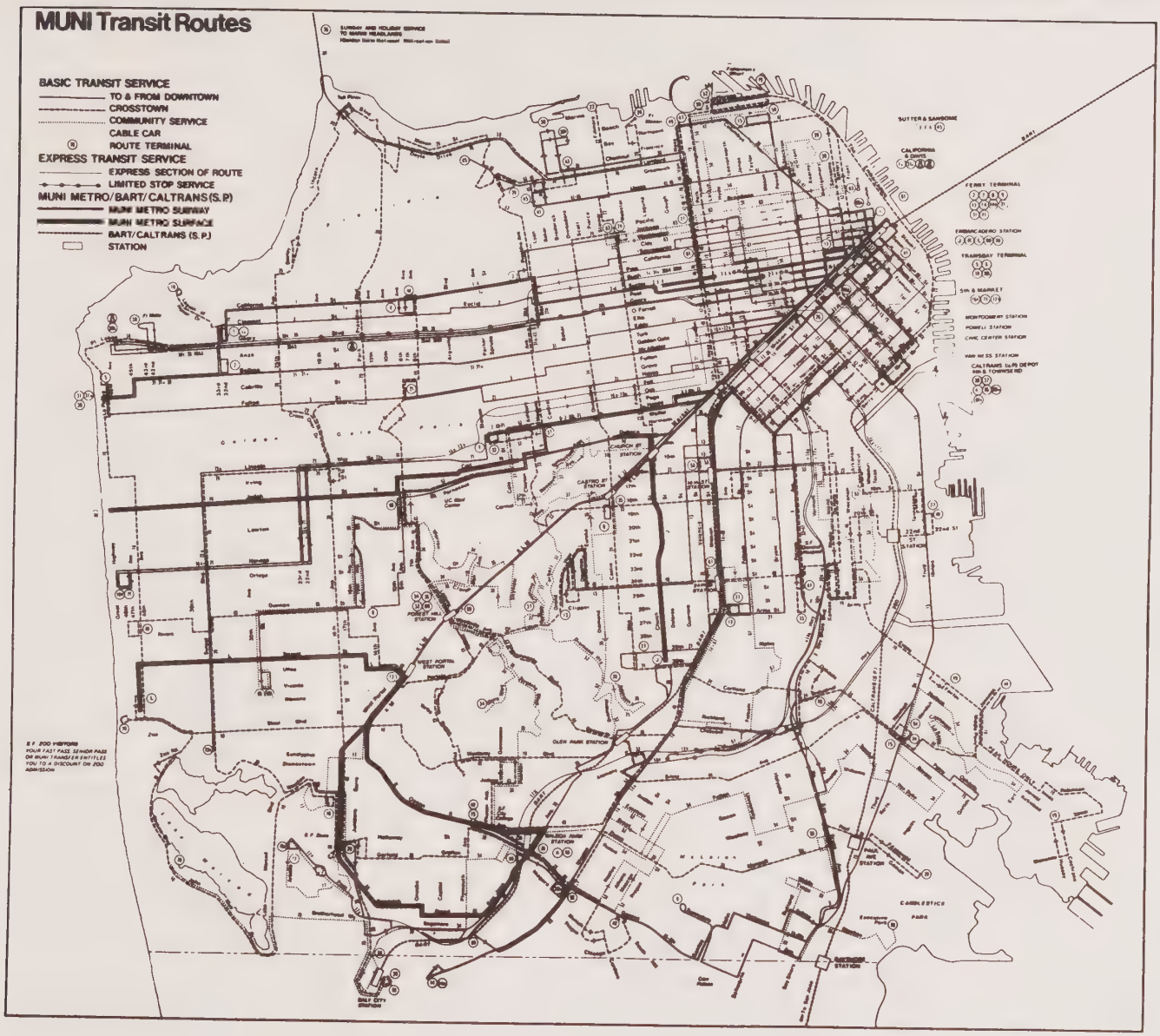
Directors of the SFMRIC are:

James J. Ludwig, Joseph C. Ozan, Walter J. Spaelti, Charles J. Scollin, Lily Cuneo, Frank N. Newman, and John Bowers all of San Francisco, who serve without compensation.

MUNI KEY INDICATORS
PERFORMANCE SUMMARY FY 1983/84

Indicators	FY 83/84 1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
EQUIPMENT AVAILABILITY				
(% of park peak vehicle demand)				
Motor Coach	104%	97%	91%	96%
Trolley Coach	113%	110%	114%	115%
LRV	104%	103%	109%	109%
Cable Car	n/a	n/a	n/a	n/a
EQUIPMENT RELIABILITY				
(miles per road call)				
Motor Coach	587	666	763	871
Trolley Coach	801	788	1010	1137
LRV	910	852	985	1023
Cable Car	n/a	n/a	n/a	n/a
OPERATOR-MISSED SERVICE				
% of total service hours missed/week	1.3%	0.9%	0.5%	0.8%
NON-SCHEDULED OVERTIME				
average # of hours/week	2373	1914	1109	2256
METRO TURNAROUND/EMBARCADERO				
# seconds (AM)	153	140	140	158
# seconds (PM)	134	136	136	131
ACCIDENTS PER MILLION MILES				
Motor Coach	98	94	96	97
Trolley Coach	177	161	160	198
LRV	84	84	87	71
Cable Car	n/a	n/a	n/a	651
Systemwide	116	111	114	117
SIGNAL SYSTEM RELIABILITY				
# of interruptions	106	114	79	91
# of service delays	6	11	7	4
#minutes of downtime	62	75	129	50
PASSENGER SERVICE REPORTS				
# of complaints received per week	237	209	186	168

n/a - not applicable


MUNI Transit Routes
BASIC TRANSIT SERVICE
TO & FROM DOWNTOWN
CROSSTOWN
COMMUNITY SERVICE
CABLE CAR
ROUTE TERMINAL
EXPRESS TRANSIT SERVICE
EXPRESS SECTION OF ROUTE
LIMITED STOP SERVICE
MUNI METRO/BART/CALTRANS (S.P.)
MUNI METRO SUBWAY
MUNI METRO SURFACE
BART/CALTRANS (S.P.)
STATION
SUTTER & SANSOME
CALIFORNIA & DAVIS
FERRY TERMINAL
EMBARCADERO STATION
TRANSBAY TERMINAL
5th & MARKET
MONTGOMERY STATION
POWELL STATION
CIVIC CENTER STATION
VAN NESS STATION
CALTRANS 1-95 DEPOT
VAN NESS & TOWNSEND
CASTRO ST. STATION
FOREST HILL STATION
WEST PORTAL STATION
GLEN PARK STATION
BALBOA PARK STATION
CASTRO STREET
PARK
DALY CITY STATION

CITY AND COUNTY OF SAN FRANCISCO
SAN FRANCISCO MUNICIPAL RAILWAY AND
SAN FRANCISCO MUNICIPAL RAILWAY
IMPROVEMENT CORPORATION
COMBINED BALANCE SHEET

Years Ended June 30, 1984 and 1983

(In Thousands)

ASSETS	1984	1983
Current assets:		
Cash	$ 144	$ 110
Equity in cash and investments on the City Treasurer	8,715	30,165
Receivables:		
Grants	24,502	12,526
State returned sales tax	—	4,554
Interfund receivables from general City departments and funds	1,736	536
Miscellaneous	2,204	297
	28,442	17,913
Material and supplies	9,897	6,821
Total current assets	47,198	55,009
Restricted assets		
Cash and short-term investments held by trustee	45,135	39,194
Interest receivable	603	453
	45,738	39,647
Property, plant and equipment:		
Land	7,319	1,189
Roads and structures	101,090	110,223
Equipment	240,378	122,767
Power	1,050	1,291
Construction in progress	13,750	45,977
	363,587	281,447
Less accumulated depreciation	83,207	76,082
	280,380	205,365
	$373,316	$300,021

LIABILITIES AND FUND EQUITY	1984	1983
Current Liabilities:		
Vouchers payable and accrued expenses	$ 15,673	$ 12,643
Accrued vacation, sick leave and worker's compensation	7,725	8,688
Accrued payroll	5,767	4,586
Interfund payables to general City departments and funds	20,663	11,601
Accident claims liability	12,121	12,121
Deferred revenue	4,173	342
Restricted liabilities		
Accounts payable and accrued liabilities	1,115	1,782
Current portion of bonds payable	2,150	2,085
Total Current liabilities	69,387	53,848
Long-term portion of accrued sick leave and worker's compensation	6,916	6,915
Bonds payable from restricted funds, less current maturities	24,880	27,030
Total long-term liabilities	31,796	33,945
Commitments and contingent liabilities	—	—
Fund equity:		
Contributed capital	350,427	277,794
Accumulated deficit	(78,294)	(65,566)
Total fund equity	272,133	212,228
	$373,316	$300,021

CITY AND COUNTY OF SAN FRANCISCO
SAN FRANCISCO MUNICIPAL RAILWAY AND
SAN FRANCISCO MUNICIPAL RAILWAY
IMPROVEMENT CORPORATION
COMBINED STATEMENT OF LOSS

Years Ended June 30, 1984 and 1983

(In Thousands)

	1984	1983
Operating revenues:		
Passenger	$ 51,899	$ 51,186
Advertising	1,420	644
	53,319	51,830
Operating expenses:		
Maintenance and repairs - ways and structures	13,520	12,449
Maintenance and repairs - equipment	34,909	34,594
Conducting transportation	96,002	93,730
General and administrative	26,795	24,926
Depreciation	12,728	9,550
	183,954	175,249
Loss from operations	130,635	123,419
Nonoperating revenues (expenses):		
Contribution received:		
Metropolitan Transportation Commission:		
Transportation Development Act Funds - operating portion	15,347	14,920
State Transit Assistance funds - operating portion	7,288	4,604
Bridge toll funds	646	2,505
Federal operating assistance	13,953	6,700
State returned sales tax	11,300	10,100
California Transportation Commission	87	—
Interest income	3,952	3,884
Interest expense	(1,825)	(1,956)
Other income (expense), net	(304)	159
Loss on disposal of fixed assets	(1,798)	(1,592)
	48,646	39,324
Loss before operating transfers	81,989	84,095
Operating transfers from the City and County of San Francisco:		
Tax support	64,011	69,795
Revenue sharing	5,250	4,750
	69,261	74,545
Net loss	$ 12,728	$ 9,550

SAN FRANCISCO WATER DEPARTMENT

Eugene Kelleher, General Manager & Chief Engineer

The San Francisco Water Department is charged with:

Delivering safe and potable water in adequate quality to all customers and respond to emergency situations;

Charging equitably and collecting for water services;

Providing for present and future needs through continuous maintenance, planning and improvements; and

Conducting all operations efficiently and at reasonable cost.

Overview

Negotiations were concluded on the water rate litigation an a new Rate Schedule for Water service adopted by the Public Utilities Commission and the Board of Supervisors. The new schedule, effective August 1, 1984, provides for an increase of 10 percent on rates and charges, uniform to the nearest five cents on service charges and to the nearest mill on water rates, for all water delivered within the City and to suburban non-resale customers.

Testing and sampling procedures for monitoring water quality (i.e. corrosivity, physical, chemical, radiological, triholomethane and bacterological quality) were completed per schedule. Except for targets pertaining to water corrosivity, water quality was well within state and federal standards and guidelines.

The new Deputy General Manager, Arthur R. Jensen, reported for duty on June 11.

Organization

The San Francisco Water Department consists of five operating units:

Administration - for planning and policy direction.

City Distribution - for maintenance and operational activities to assure adequate pressure and water volume for domestic use and fire-fighting.

Suburban - to deliver and meter use of water accurately.

Commercial - to provide billing and collection functions.

Water Quality - to protect water resources, treat and supply potable water to consumers in conformance with all state and federal standards, rules and regulations.

Staff

Eugene Kelleher, retired in September 1984, General Manager and Chief Engineer.

Arthur R. Jensen, Deputy General Manager

Raymond Quan, Senior Engineering Resources and Planning

George Nakagaki, Manager, City Distribution

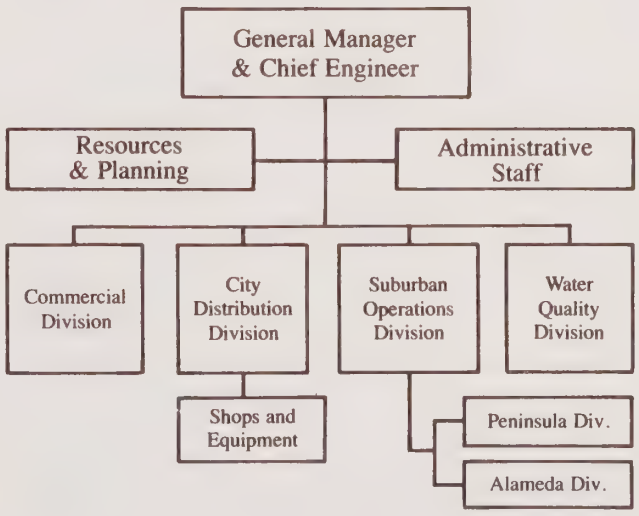
Edward Fonseca, Manager, Suburban Division

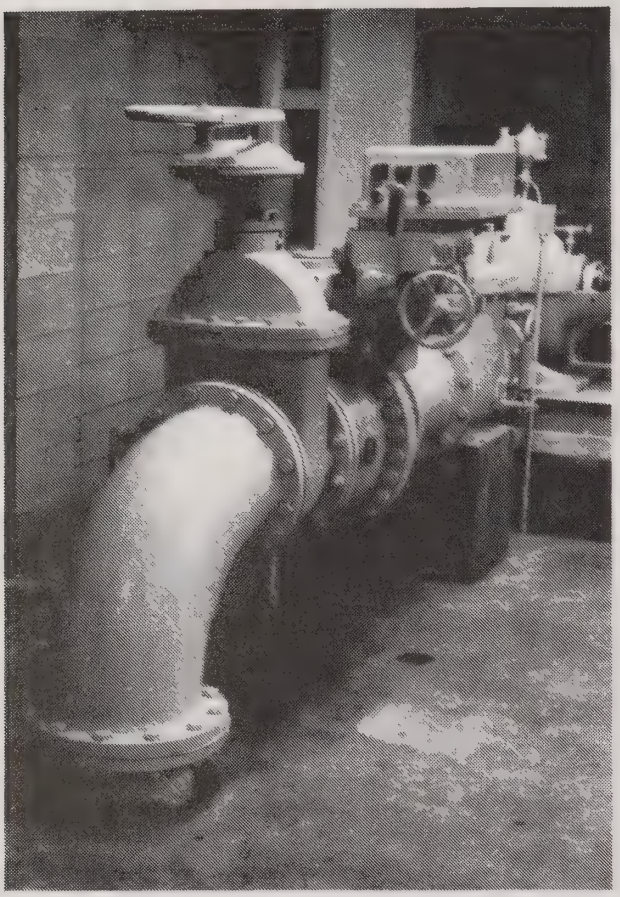
Robert Vasconcellos, Manager, Commercial Division

Harry Tracy, Manager, Water Quality

The people of San Francisco created the Water Department on March 3, 1930 by purchasing the properties, facilities and service areas of the privately owned Spring Valley Water Company. At that time, Spring Valley delivered about 52 million gallon of water per day to some 700,000 customers in the City and in the San Mateo County suburbs. Today about 260 million gallon of water are used daily by 1.8 million customers. More than 150 million gallons of that daily usage goes to most of urban San Mateo County, the Santa Clara County cities of Palo Alto, Mountain View, Sunnyvale and Milpitas, and in Alameda County the Sunol, Hayward and Fremont areas.

San Francisco Water Department
ORGANIZATION CHART





Water pump from suburban to city distribution systems.

San Francisco water consumption for Fiscal Year 1983-1984 shows an increase from last year. Suburban consumption is up.

The 63,000 acres of watershed and other lands owned by the Water Department within the 500 square mile service area of San Francisco, San Mateo, Santa Clara and Alameda Counties, make this municipal utility one of the Bay Area's largest land owners.

U.S. Department of Interior easements in the 23,000 acre San Mateo County Land Management watershed are administered by the Golden Gate National Recreation Area. These include a 19,000 acre scenic easement at the westerly side and a 4,000 acre scenic and recreation easement at the easterly side.

The land management program provides reforesting, erosion control, recreation and commercial use of the watershed acres in Alameda, Santa Clara and San Mateo Counties.

During the year the average daily consumption of water was 257.8 million gallons. The Sunol Filter Plant in Alameda County treated some 61.7 million gallons per day from the San Antonio and Calaveras Reservoirs. The San Andreas Filter Plant in San Mateo County treated some 57.2 million gallons per day from Pilarcitos and San Andreas Reservoirs and through San Andreas, Crystal Springs Reservoir.

The balance of San Francisco's water needs was met by importing some 178.1 million gallons daily from the Hetch Hetchy System.

Operating income for the fiscal year showed a 31% increase to $6,569,000. At year's end, the five suburban reservoirs were at 76% of capacity holding about 59.2 billion gallons of water.

Within the limits of the City and County, municipal storage and delivery services are operated by City Distribution Division. In the past 125 years, San Francisco's complex water distribution system has grown into a dozen reservoirs and auxiliary tanks at various elevations, pumping stations and an amazing network of 1,179 mile of pipeline, of various diameter, all tucked out of view under city streets.

Built on hills, San Francisco's geography ranges from sea level to 900+ feet. Totally urbanized, with homes at the highest elevations, the hills posed challenges and complicated hydraulic situations for water engineers. Their genius created a series of different pressure districts which incorporate the oldest water works, reservoirs and pipelines with the Water Department additions and improvements into a modern and efficient, integrated water distribution service.

The 12 municipal reservoirs within the City can hold, at capacity, some 495 million gallons (1,505 acre feet), about a five day supply for the City. Within the City there is also an emergency supply immediately available at Lake Merced which holds 2.5 billion gallons (7,872 acre feet) or about one month's supply.

The underground transmission and distribution mains range in size form 2 inches to 60 inches in diameter, delivering water to 163,000 services, some of which may require as many as a dozen water meters. Along with the on-going program of repair and replacement of the pipes, worn meters are replaced, as required, at the rate of some 5,000 per year.

Water collected by the five suburban reservoirs is moved through 233 miles of transmission mains to the City by the Suburban Division. Having a total storage capacity of a bout 77.8 billion gallons of water (238,750 acre feet), the suburban reservoirs are in San Mateo, Alameda and Santa Clara counties.

Calaveras - 96,850 acre feet - Santa Clara/Alameda Counties

San Antonio - 50,500 acre feet - Alameda County

Crystal Springs - 69,300 acre feet - San Mateo County

San Andreas - 19,000 acre feet - San Mateo County

Pilarcitos - 3,100 acre feet - San Mateo County

San Andreas Lake (upper) and Crystal Springs Lake (lower) in the San Mateo County watershed.

A new water and sewer customer information and billing system for the Commercial Division was approved. This system will provide greatly improved customer services, timely collection by the Electronic Information Processing Steering Committee of water and sewer service revenues and automate certain functions related to water quality and the distribution system. The system specification manual, Phase I, is slated for completion by September 1984.

San Francisco's drinking water is continually tested and analyzed to insure that it remains in conformance with all state and federal standards, rules and regulations. These tests and analyses are conducted and performed by the Water Quality Division.

Corrosivity is determined by two measures - the Langlier Index and the Aggressiveness Index. Guidelines for the Langlier Index are that all samples should be positive and for the Aggressiveness Index that samples tested have a 12+ value. The suggested guidelines were not met. Of 20 samples tested, 11 had negative Langlier Index values, and four have Aggressiveness Index values between 11.86 and 11.98.

Lime dosage was increased at Rock River Facility to minimize corrosive action of Hetch Hetchy water. As a routine operation and independent of the test results, lime feeding at Sunol Treatment Plant was increased by 28%. A comprehensive study to review system wide corrosion control will be conducted in Fiscal Year 1984-85.

Federal guideline requiring 85 samples to be analyzed for Trihalomethane, a known carcinogen, were met and executed. With a permissible limit of 100 parts per billion, the Water Department system wide running annual average for the year is 63.5 parts per billion, well within the permissible limit.

The California Department of Health and the Water Department jointly determined that based on the number of sampling locations, 860 samples (4300 tubes) are to be tested per quarter to monitor for bacteriological content. Water Department tests exceeded state minimum requirement by over 200%. State guidelines are that a maximum of 5% of samples and 10% of tubes tested can be positive and still be within the permissible limit. During the Fall of 1983 a sample (.001%) came up positive and in the Spring of 1984, 63 tubes (1.5%) were found to be positive. However, resampling in both instances indicated negative bacteriological content.

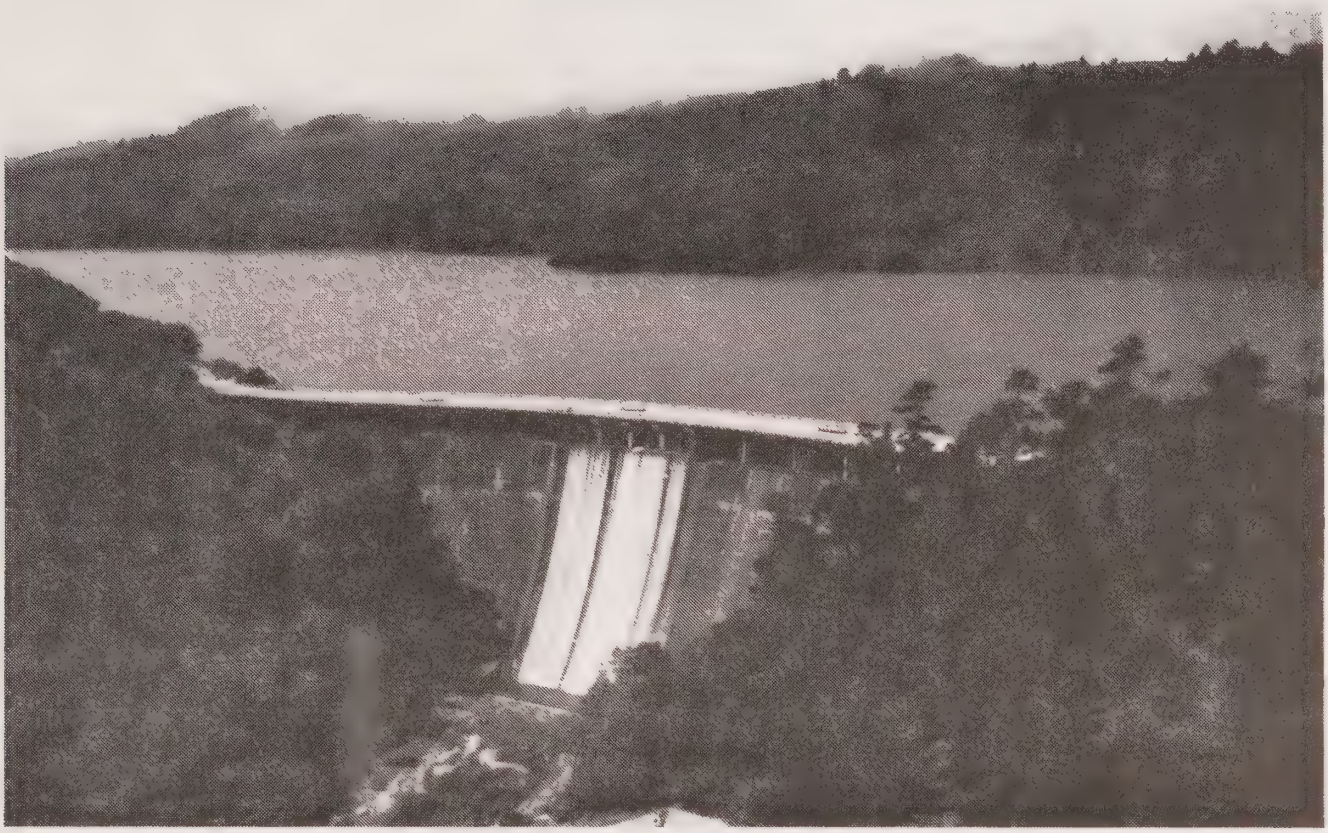
Federal and State guidelines requiring the Water Department to monitor the physical and chemical quality parameters of the water at some 100 sampling locations with 9000 tests were exceeded by 78%. Results indicated no abnormalities in the water tested.

San Francisco Water Department

Average Monthly Production and Consumption

Month	Suburban Reservoir Level (000,000 gallons)	Filter Plant Production Sunol (MGD)	Filter Plant Production San Andreas (MGD)	Hetchy Hetchy Import (MGD)	System Consumption (MGD)
June 1984	57,657	15.5	51.6	302.7	333.1
May	59,778	40.8	50.3	264.6	306.4
April	61,687	38.5	23.5	245.4	240.3
March	61,499	46.5	29.3	211.0	203.3
February	60,333	86.3	56.3	87.9	188.4
January	60,094	85.2	56.1	86.6	190.3
December 1983	62,302	67.9	61.6	83.7	185.8
November	54,732	58.5	67.7	116.3	195.8
October	52,413	47.3	68.8	165.0	251.8
September	55,377	108.5	74.5	164.9	330.5
August	60,187	68.2	73.1	200.2	329.8
July	64,602	77.5	73.1	208.5	338.3
Annual Average	59,222	61.7	57.2	178.1	257.8

SAN FRANCISCO WATER



Crystal Springs Dam

State guidelines requiring radiological analysis every two years were exceeded. Water was analyzed three times during the year with all results falling within the permissible state limit.

A Water Department standard is that no more than 10 of the 92 samples taken from the filterer water at San Andreas Treatment Plant exceed 0.2 turbidity units. Throughout the year, the turbidity never exceeded 0.2 units.

At the close of the Fiscal Year, the Public Utilities Commission recommended to the Board of Supervisors that a $104 million Revenue Bond Issue be submitted for the November 1984 election to construct a new 40 million gallons per day (mgd) water filter plant at Crystal Springs in San Mateo County and to increase by 40 mgd the capacity of the existing 12 year old San Andreas Filter Plant, also in San Mateo County.

Because there is no facility to filter Crystal Springs water directly, the waters are pumped to San Andreas Reservoir and then treated by the San Andreas Filter Plant to meet federal drinking water standards before entering the Water Department customer service system.

Unfiltered water from Crystal Springs has not been used since 1979, except for emergencies. This is due to a growing awareness of, and concern for, the presence of natural asbestos fibers originating from serpentine rock in the reservoir and the possible presence of *Giardia Lamblia* cysts. Although these concerns have not been scientifically substantiated, the Water Department views the unfiltered Crystal Springs water as being "at risk," a viewpoint shared by the California Health Department which recommended the use of unfiltered Crystal Springs water be avoided.

Successful passage of the revenue bond issue will finance constructing a 40 mgd capacity filter plant, budgeted at $60 million, and 30 mg balancing reservoir, at $21 million, for Crystal Springs and expanding the dozen year old San Andreas Filter Plant, at $23 million. The costs are calculated 1989 prices. The projects are required to reduce the need to use unfiltered water from Crystal Springs.

The Revenue Bond Issue will be repaid, interest and principal, entirely from Water Department revenues with no recourse to the municipal tax rate. Should the water bond issue not meet with voter approval, in future years hot weather water use levels may require conservation measures to cut back water use. The problem with this is that effective conservation measures cannot now be imposed without personal and financial hardship on Water Department patrons.

SAN FRANCISCO WATER DEPARTMENT
BALANCE SHEET

Years Ended June 30, 1984 and 1983

(In Thousands)

ASSETS	1984	1983
Property, plant and equipment		
Utility plant:		
Water	$294,932	$287,128
Power	—	—
Joint	—	—
Other	—	26
Total utility plant	294,932	287,155
Accumulated depreciation	(104,966)	(101,019)
Construction in progress	5,593	2,969
Net property, plant and equipment	195,559	189,105
Restricted funds:		
Cash and investments	12,655	12,427
		12,427
Current assets:		
Cash	40,118	36,546
Accounts receivable:		
Water and power	5,567	3,998
Rentals, claims and other	1,693	147
	7,260	4,145
Allowance for doubtful accounts	(76)	(75)
	7,184	4,069
Interfund accounts receivable:		
General City departments and funds	(324)	1,243
Public Service departments	—	5
Materials and Supplies	1,539	1,395
Unbilled costs or deposits on work orders for other City departments	24	161
Total current assets	48,541	43,420
	$256,755	$244,952

CAPITALIZATION AND LIABILITIES	1984	1983
Net capital investment	$211,192	$198,107
Long-term debt	29,699	34,578
Long-term sick leave payable	2,245	
Total capitalization	243,136	232,595
Current liabilities:		
Current portion of long-term debt	4,878	4,863
Accounts payable	1,723	1,037
Accrued payroll	730	453
Accrued vacation, sick leave and workers' compensation payable	2,374	1,403
Accrued interest payable	387	689
Retentions due contractors	121	140
Interfund payables to		
General City departments and funds	1,360	1,594
Public Service departments		24
Damage and claim liability	875	500
Total current liabilities	12,448	10,704
Deposits and construction advances	1,170	1,654
	$256,754	$244,952

SAN FRANCISCO WATER DEPARTMENT
STATEMENT OF INCOME

Years Ended June 30, 1984 and 1983

(In Thousands)

	1984	1983
Operating revenues:		
Water	$54,029	$43,691
Total Operating revenues	54,029	43,691
Operating expenses:		
Purchased power and energy	6,630	4,446
Transmission and distribution	9,290	8,181
Operation and maintenance	12,314	12,610
General and administrative	12,835	10,451
Depreciation	5,108	4,601
Property taxes	1,283	1,369
Total operating expenses	47,460	41,657
Operating income	6,569	2,034
Other income:		
Rental income, net of expense	2,320	1,739
Interest	5,999	6,309
Other	1,379	1,965
	9,698	10,012
Other expenses:		
Interest expense	2,046	1,691
Other income, net	7,652	1,691
Income before operating transfers	14,227	10,355
Operating transfers:		
From (to) Water Department		
Hetch Hetchy Project	1,230	
	1,236	
Net income	$15,451	$10,355

THE HETCH HETCHY SYSTEM

Dean W. Coffey, General Manager

San Francisco's Hetch Hetchy Water and Power System is charged with:

Collecting, storing, regulating and administering water delivery to the Hetch Hetchy Aqueduct as required by the San Francisco Water Department and to generate and transmit electric power for use and sale.

Delivering electrical power to Municipal Railway's Metro light rail vehicles, trolleys and cable cars via the motive power distribution system.

Computing electric and gas bills for all municipal agencies, including street lighting, accurately and on time, and making effective and efficient use of available resources to provide adequate and reliable street lighting for San Francisco.

Overview

Hetch Hetchy met the Water Department;s domestic water delivery demands. Power production systemwide met scheduled production goals for the year, and power was consistently provided to the Municipal Railway for its vehicle operations. All other performance criteria were met.

Discussions are being held with Turlock and Modesto Irrigation districts and with PG&E for renewal of the current contracts beyond their expiration dated of June 30, 1985.

Capital Improvement projects continue according to schedule.

Organization

The Hetch Hetchy Water and Power System consists of four operating units with 177 budgeted positions:

- General Administration provides overall management through personnel administration for the Hetch Hetchy units, monitoring all capital improvement projects and negotiating the sale of power and water to outside customers.
- Project Operations collect, stores and delivers domestic water and generates and transmits electric power for San Francisco to use and sell.
- Transit/Motive Power provides reliable electrical power to the Municipal Railway by operating and maintaining the vehicular power distribution system.
- Bureau of Light, Heat and Power computes all electric and gas charges for the various municipal agencies as well as street lighting charges.

Staff

Dean W. Coffey, General Manager
Theodore L. Chung, Deputy General Manager
Alton L. Walter, Superintendent, Project Operations
Raymond A. Protti, Superintendent, Facilities Maintenance
Joe F. DeGarca, Manager, Bureau of Light, Heat and Power

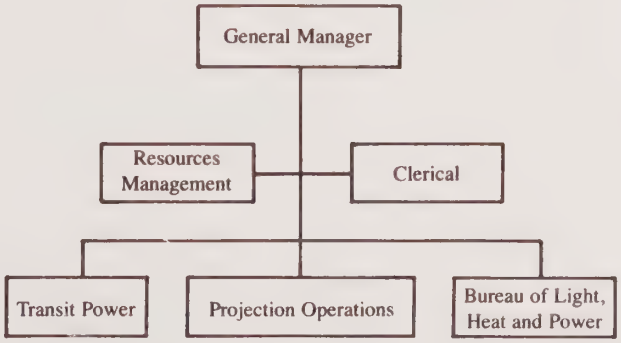
The Raker Act, HR7207, signed into law by President Woodrow Wilson on December 6,1913, granted San Francisco the right to develop the watersheds of the Tuolumne River with dams and aqueducts to take full advantage of the City's water right under California law. The Act also imposed on San Francisco the requirement to develop hydroelectric power which would be the natural by-product of the Hetch Hetchy water supply development.

At its own expense, San Francisco constructed the dams, power tunnels, pipelines, powerhouses, switchyards, transmission lines and aqueducts which make up the water and power system . Although segments of the system were in operation from 1918, the first Hetch Hetchy water to reach San Francisco arrived on October 24, 1934.

Waters of the Tuolumne River in the High Sierra are collected in three major dams and reservoirs:

1. O'Shaugnessy Dam which impounds the Tuolumne River with Hetch Hetchy Reservoir - capacity 360,360 acre feet - watershed 459 square miles.
2. Cherry Dam which impounds the 114 square mile watershed of the Cherry River (tributary to the Tuolumne), in Lake Lloyd Reservoir, capacity 268,800 acre feet.

HETCHY WATER AND POWER



HETCH HETCHY WATER AND POWER

Net Electrical Production and San Francisco Municipal Uses (KWH)

Month	Moccasin	Holm	Kirkwood	Total Net	City Use	% Total
July 1983	44100900	109995890	62208670	216305460	49703871	23.0
August	45438700	110169540	62414240	218022480	52336347	24.0
September	43859500	69759510	60327520	173946530	52737527	30.3
October	44837400	91421520	61067690	197326610	52975796	26.8
November	43786000	93153910	57950140	194890050	52501026	26.9
December	45074600	105948190	59779230	210802020	54250413	25.7
January	44779100	105672360	58925630	209377090	54910064	26.2
February	42199000	79864790	49069790	171133580	51956763	30.4
March	45298900	89070560	59375820	193745280	53178869	27.4
April	43577300	65444950	56713080	165735330	49497331	29.9
May	45020900	72953620	60518600	178493120	51051871	28.6
June 1984	43547800	77884840	59508030	180940670	52603560	29.1
Year's Total	531520100	1071339680	707858440	2310718220	627703438	27.2

3. Eleanor Dam which impound the 79 square mile watershed of Eleanor Creek (tributary to the Tuolumne) in Lake Eleanor Reservoir, capacity 27,000 acre feet.

The domestic supply for San Francisco and neighboring communities is taken mainly from the Hetch Hetchy Reservoir. The water moves by gravity flow through the Canyon Power Tunnel to produce electricity at the Robert C. Kirkwood Powerhouse and then through the Mountain Power Tunnel to produce more electricity downstream at the Mocassin Powerhouse.

Water released from Lakes Lloyd and Eleanor passes through the Cherry Power Tunnel to generate electricity at Dion R. Holm Powerhouse before continuing to the Don Pedro Reservoir to satisfy the Raker Act entitlements of the Modesto and Turlock Irrigation Districts.

After passing through the the Moccasin Powerhouse, the domestic water supply enters the Hetch Hetchy aqueduct at the Foothill Tunnel, then passing through the San Joaquin Pipelines and the Coast Range Tunnel. Having travelled by gravity some 122 miles, the water is then delivered to the San Francisco Water Department at Alameda Creek East Portal.

During the Fiscal Year, Hetch Hetchy delivered an average of 178.1 million gallons per day (65 billion gallons or 199,500 acre feet annually), to the San Francisco Water Department at Alameda East Portal. This water volume represented 69% of San Francisco's customers total consumption, the balance of the City's sales being produced by Water Department's Peninsula and Alameda Divisions from local sources. An additional 277.0 million gallons (850 acre feet) were delivered at the Coast Range Tunnel Mocho Shaft to the Lawrence Livermore National Laboratory. Groveland Community Services District in Tuolumne county received 104.4 million gallons (321 acre feet) from the Second Garrote Shaft of the Mountain Tunnel.

Net electrical production from the three powerhouses was 2.3 billion kilowatt hours, of which 628 million kilowatt hours, or over 27% of net t production, went to satisfy needs of San Francisco municipal departments, including the Municipal Railway and street lighting. The balance was sold to the Modesto and Turlock Irrigation districts and seven industrial customers. In fiscal year 1983-84 power sales produced over 77 million in gross revenues and 42 million for the General Fund and San Francisco taxpayer relief.

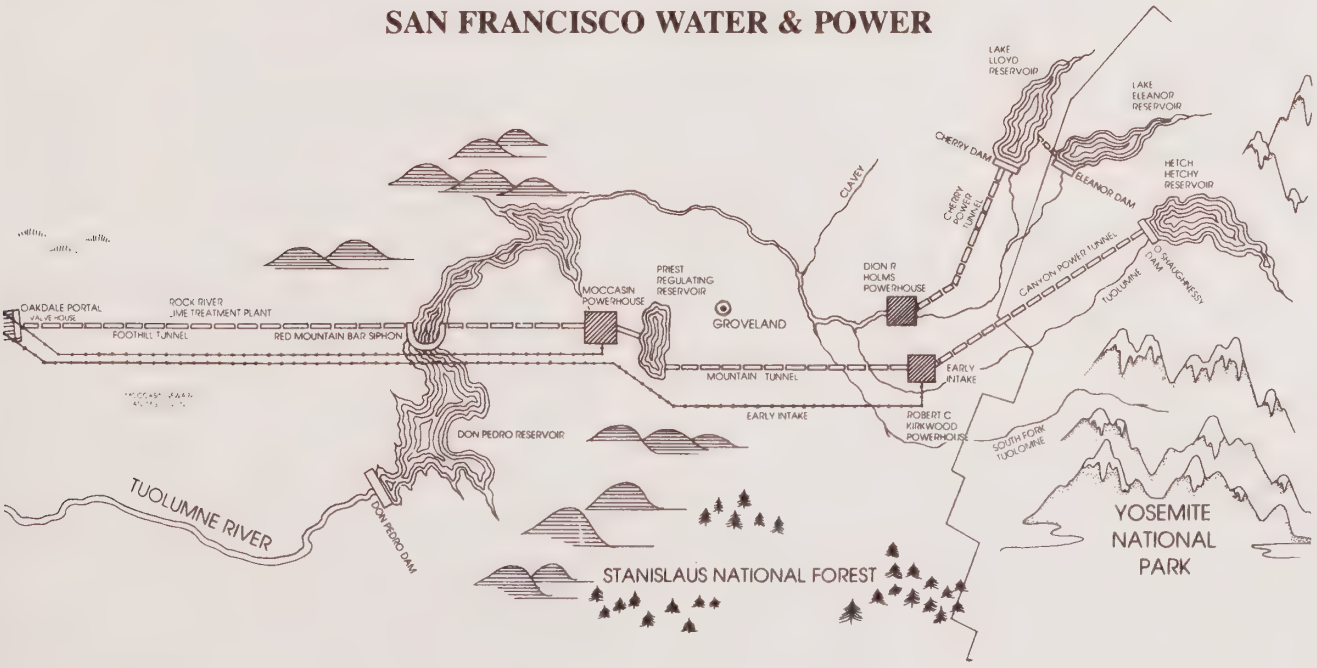
Continuing to operate through Hetch Hetchy, the Bureau of Light, Heat and Power combined service functions for municipal purposes with operating functions providing public street lighting.

During the year, the Bureau handled all billings to municipal accounts for Hetch Hetchy generated electricity valued at $25.5 million and for the 16.1 million therms of natural gas and 177,300 pounds of steam purchased from the Pacific Gas and Electric company, at a cost of $9.7 million.

Some 10,000 City owned Mercury Vapor (MV) street lights were converted to energy efficient High Pressure Sodium Vapor (HPSV) during the year resulting in annual saving of 4.3 million kilowatt-hours valued at $238,000.

The project to convert street lights from "high-voltage series" to "low-voltage multiple" circuits will have an annual saving of 330,000 kilowatt-hours valued at $18,000. By the end of the year, 698 lights were converted.

O'Shaughnessy Dam in Yosemite National Park, impounding 360,000 acre feet of drinking water for thirsty San Franciscans in Hetch Hetchy Reservoir.



HETCH HETCHY PROJECT
BALANCE SHEET

Years Ended June 30, 1984 and 1983

(In Thousands)

ASSETS	1984	1983
Property, plant and equipment:		
Utility plant:		
Water	$98,584	$98,505
Power	153,525	135,369
Joint	106,099	105,925
Other	410	
Total utility plant	358,618	340,209
Accumulated depreciation	(124,374)	(118,827)
Construction in progress	2,452	14,724
Net property, plant and equipment	236,696	236,107
Restricted funds:		
Cash and investments	2,641	3,871
Current assets:		
Cash	138,049	104,144
Accounts receivable:		
Water and power	3,472	5,984
Rentals, claims and other	2,912	35
	6,384	6,019
Allowance for doubtful accounts	(6)	(32)
	6,378	5,987
Grants receivable	1,121	3,020
Interfund accounts receivable:		
General City departments and funds	1,638	8,445
Materials and supplies	111	104
Total current assets	147,297	121,701
	$386,634	$361,679

CAPITALIZATION AND LIABILITIES	1984	1983
Net capital investment	$366,952	$339,197
Long-term debt	9,801	13,352
Long-term sick leave payable	697	
Total capitalization	377,450	352,550
Current liabilities:		
Current portion of long-term debt	3,552	3,552
Accounts payable	2,994	2,536
Accrued payroll	221	378
Accrued vacation, sick leave and workers' compensation payable	621	511
Accrued interest payable	202	254
Retentions due contractors	102	521
Interfund payables to General City departments and funds	1,420	1,306
Damage and claim liability	25	25
Total current liabilities	9,137	9,082
Deposits and construction advances	48	47
	$386,635	$361,679

HETCH HETCHY PROJECT
STATEMENT OF INCOME

Years Ended June 30, 1984 and 1983

(In Thousands)

	1984	1983
Operating revenues:		
Water	$6,826	$4,590
Electricity	70,290	76,216
Total operating revenues	77,116	80,807
Operating expenses:		
Purchased power and energy	7,068	4,077
Transmission and distribution	3,670	3,608
Operation and maintance	3,796	3,250
General and administrative	7,403	6,569
Depreciation	5,755	5,000
Property taxes	500	484
Total operating expenses	28,192	22,988
Operating income	48,924	57,818
Other income:		
Rental income, net of expense	124	194
Interest	13,542	11,502
Other	8	49
	13,674	11,744
Other expenses:		
Interest expense	526	668
Operation of Municipal Railway overhead lines	2,743	2,586
Other income, net	10,405	
Income before operating transfers	59,329	66,308
Operating transfers:		
From (to) Water Department Hetch Hetchy Project	(1,230)	
From (to) City and County of San Francisco:		
Tax support	11,104	9,748
General fund	(42,104)	(25,033)
	(32,230)	(15,285)
Net income	$27,099	$51,023

UTILITIES ENGINEERING BUREAU

Leo Jed, Deputy General Manager and Chief Engineer

Organizational Description

The Utilities Engineering Bureau provides engineering and construction management services to the departments and bureaus in the Public Utilities Commission. There are five sections in UEB: including Project Management, Engineering Services, Construction Engineering, Scheduling and Planning, and Administration. For FY 83/84, the UEB had 184 approved positions and an annual operating budget of $3.9 million.

Overview

During FY 83/84, the UEB had 128 funded projects, of which 24 were completed by year-end, 72 were underway and 32 were without assigned schedules. The 128 projects were budgeted at $264 million.

The 24 projects completed in FY 1983/84 are included with the 72 projects still underway. The 32 projects are without assigned schedules and are treated separately.

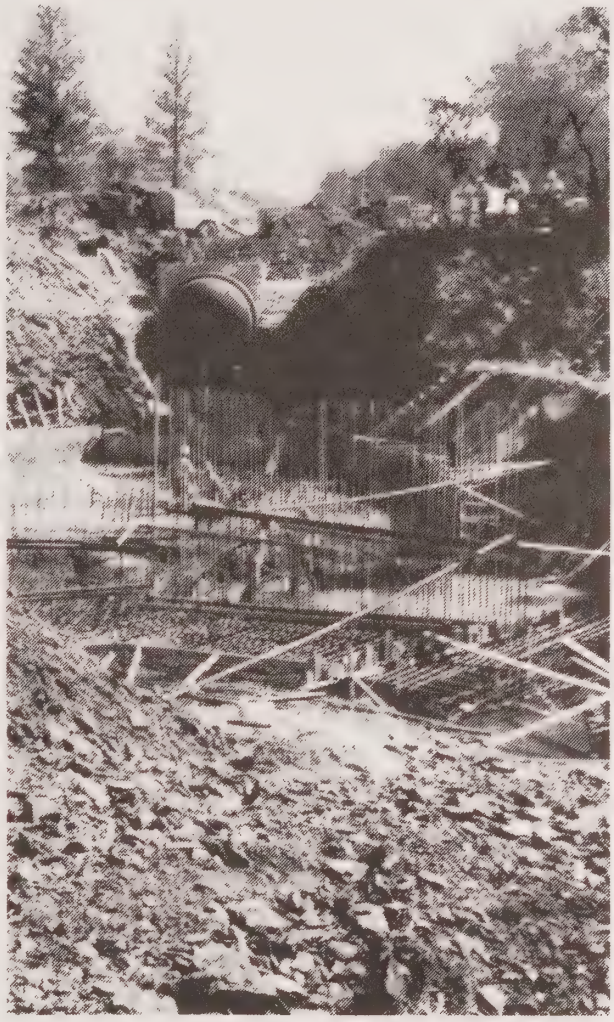
A supplemental request for $1.9 million to develop better management tools and approaches was made as a result of the Management Assessment conducted during the first half of the year. This request has the support of the Mayor's Office, but has not yet been reviewed by the Board of Supervisors. Funding approval is anticipated for FY 84/85.

Current Projects in Development

At the end of the year, 19% of UEB's 72 projects in development were on or ahead of original schedule. Budget value of these current projects exceed $186 million.

UEB Management Assessment Program

In July 1983, the newly appointed Deputy General Manager and Chief Engineer, Leo Jed, initiated a Management Assessment of the UEB. The services of engineering and organizational consultants were procured and a five-month study was conducted. The resulting recommendations included an extensive program that would make improvements in all UEB functions: human resources development and training, administrative support, management reporting systems, project management, information storage and processing and client relationships. The estimated cost of this improvement program is $1.9 million for training, consultants, and systems development.



Moccasin lowhead generator site under construction.

The $1.9 million Management Assessment supplemental has not yet been approved by the Board of supervisors. This will have impact on UEB's ability to carry out proposed organizational improvements quickly.

Internal management improvements which can be accomplished with existing resources have proceeded. There are five major tasks in the implementation of the UEB Management Assessment that were monitored during FY 83/84.

Tasks	Target Completion
1. additional personnel needs assessment for FY 1983/84	2/84
2. manpower planning and allocation system	5/84
3. management plans to complete improvements	5/84
4. document management system	6/84
5. training program assessment complete	6/84

UEB PROJECTS STATUS FY 83/84
Effective: June 30, 1984
($values 000,000s)

	MUNI	WATER	HETCHY*	PUC TOTAL
PROJECTS UNDERWAY				
On-time/ahead	4	4	6	14
late	14	12	32	58
total	18	16	38	72
budget value	$99.6	$15.4	$71.9	$186.9
COMPLETED PROJECTS				
on-time/ahead	3	4	1	8
late	6	5	5	16
total	9	9	6	24
budget value	$30.3	$3.5	$2.3	$36.1
PROJECTS "ON HOLD"				
total	5	8	19	32
budget value	$19.7	$3.4	$17.5	$40.6
TOTAL PROJECTS				
total	32	33	63	128
budget value	$149.6	$22.4	$91.8	$263.6

*HETCHY projects include Transit Power Overhead projects, which serve the Municipal Railway.

BUREAU OF FINANCE

Anson Moran, Assistant General Manager

Organizational Description

Bureau of Finance has 143 budgeted positions and an operating budget of $3.4 million during this fiscal year. The Bureau is divided into three sections: Accounting, Audits and Performance Analysis, and Budgets and Grants. The Accounting section is responsible for MUNI revenue collection and processing, payroll preparation and processing, procurement monitoring, and accounting functions supporting all PUC operations. The Audits and Performance Analysis section supports PUC management through the development and implementation of performance monitoring systems and by conducting internal audits as a means of strengthening internal management controls. This section additionally assesses the financial impact of management options and prepares the external reports which include financial and operating data. Budgets & Grants supports the planning, operating and capital financial requirements of the PUC through various activities such as development of annual departmental operating budgets, preparation of Capital Improvement Programs for the various departments, and monitoring and managing of both operating assistance and project grant funds in order to maximize their impact.

Overview

In Accounting, several improvements occurred. Collection of fast pass revenues from vendors by the 15th of each month improved. Daily probing of revenue vehicles improved. Monthly financial reports were issued, on average, three (3) days after the monthly target date.

Audits and Performance Analysis completed and submitted external reports to the required funding sources. The audit resolution of Muni Metro Startup (MMSU) costs was completed. Of the $4.6 million in questioned costs, approximately $357,000 was ultimately disallowed. The research in response to the UMTA 127 Audit

Report was completed covering approximately $18 million in questioned costs. Our response was prepared and submitted to UMTA. We are awaiting their response.

Budgets and Grants submitted the Capital Improvement Plan for Muni as targeted. The FY 84/85 PUC operating budget was submitted to the Controller for review on time. Approximately 75% of the funds included in the first year of the Muni Capital Improvement Plan (1983-88) were received from various governmental grants during FY 83/84 according to plan.

BUREAU OF MANAGEMENT INFORMATION SYSTEMS (BMIS)

Hans Loffeld, Director

Organizational Description

BMIS provides systems analysis and data processing support to the PUC. The Bureau is divided into four sections: User Services, Computer Operations, Technical Services, and Administration. User Services analyzes business problems and identifies automation opportunities in cooperation with other departments and bureaus. Computer Operations is responsible for the operation of computer equipment (IBM 4341 mainframe and associated peripheral devices) and the teleprocessing network. It schedules incoming computer jobs, performs data entry functions, and produces various automated reports for PUC departments and bureaus. Technical Services has responsibility for system operating software and analyzes technical environments to ensure maximum efficiency of automated systems. Administration provides for overall management of the Bureau by coordinating materials and supply requisitions, short are long-term planning, personnel administration and clerical support for all BMIS sections. For FY 83/84 BMIS had a budget of $3.2 million and 74 approved positions.

Overview

During the year BMIS installed word processing work stations and micro computers at various PUC locations. This is part of an office automation program that should improve the productivity of word and information processing services. Enhancement and expansion of these systems will continue during FY 84/85.

BMIS has replaced four consultants with City employees in management positions during the year. Hans Loffeld, BMIS director, was brought on in December 1983 and permanent managers for Operations and User Services have since been hired.

BUREAU OF PERSONNEL & TRAINING

Andrea Gourdine, Director

Organizational Description

Personnel is presently divided into seven sections: Position Control, Recruitment/Affirmative Action, Certification, Classification, Exams, Training and Muni Passes. Position Control is the record keeping system of the recruitment and promotion process. Recruitment/Affirmative Action is the system that provides qualified personnel to the PUC Bureaus and Departments for Non Civil Service employment. Additionally, this unit assists the Civil Service Commission in recruitment and referral for Civil Service Examinations. Certification is the system that processes all Civil Service referrals from specific eligibility lists. The Exams unit maintains eligibility lists of qualified candidates for employment. The Classification unit provides support to managers in preparing position classification requests and functions as a liaison to the Civil Service Commission to provide data on new and substitute positions. The Training unit provides PUC employees with job related courses to enhance existing skills and capabilities. The Muni Passes unit is an accounting system by which employee and dependent passes are issued to all qualified and designated persons.

This bureau has 32 approved positions and is budgeted at $1 million for overall operations.

Overview

The primary focus of this Bureau for FY 83/84 has been on internal reorganization, documentation of existing processes and the development of new internal procedures. To date written procedures for each of Personnel's functional units have either been prepared or up-dated with the exception of classification. Preparing the procedures for classification have been delayed due to Personnel's resources being diverted to the position control project.

Historically the position control function has not been performed adequately. Due to understaffing, and lack of well documented internal procedures this Bureau has been unable to provide timely filling of vacant positions. The manager intends to increase the staff in this area to address these critical concerns.

LEGAL SERVICES

Mathea Falco, Manager

Organizational Description

Legal Services is composed of three sections; real estate, contract compliance and claims. Real estate is responsible for overseeing revenue generation of PUC owned properties. Contract compliance oversees MBE, SBE and DBE contract compliance. The claims department oversees processing of claims against the Public Utilities Commission. Legal Services has 35 budgeted staff positions and an annual operating budget of $3,386,307.

Overview

Revenues from leases and permits increased $717,346 over last year's total of $1,687,282, a net gain of 43%. 25 new leases and permits were granted on land which previously did not generate revenue. Total revenues for the year were $2,404,628.

2156 new claims were filed: 1303 were settled. Total settlements were $5.6 million, a savings of $1.7 million from the previous fiscal year's total settlements of $7.3 million.

An increase in the number of permanent claims agents reduced the average claims case load from 25 to the optimum of 17.

PROTECTIVE SERVICES AND INVESTIGATION BUREAU

Chuck Richardson, Director

Organizational Description

The Protective Services and Investigation Bureau is responsible for the security and investigation needs of the Public Utilities Commission. Ongoing responsibilities include providing investigative support to Personnel in hiring and disciplinary actions and providing investigative support to all departments in security matters. Other responsibilities of the department include planning and implementing security programs and procedures. The department is staffed by a Director who reports directly to the PUC General Manager. The annual operating budget is $426,000.

Overview

Substantial effort has been devoted to developing of a comprehensive security program based on the concept of Crime Prevention Through Environmental Design (CPTED). The first phase of this program consisting primarily of conducting site surveys was completed on June 12,1984, eight days ahead of schedule. The second phase of this program, consisting primarily of assessing security needs and developing an implementation plan to address these needs was completed on June 6, fourteen days ahead of schedule. A contract for hiring security consultants for the CPTED program was written and approved. The target date for completion and full operation of the program is July 30, 1985.

A security camera installation typical of the 75 installed on trolley coaches and diesel buses.

ELDERLY AND HANDICAPPED

Tom Jordan, Manager

Organizational Description

Elderly and Handicapped Services provides paratransit service by managing contracts for one-way shared rides, lift-assisted rides and single taxi scrip rides. Elderly and Handicapped services also issues Regional Transit Authority (RTA) identification cards to disabled persons and oversees the construction of wayside platforms. The annual budget is $1.6 million, with three budgeted staff positions.

Overview

Targets for all measures in paratransit service were exceeded with the exception lift-assisted rides.

Planning and analysis of the 13 lines targeted for fixed route accessible service have been completed.

Requests for additional shared rides and taxi scrip rides from 10 agencies and 1300 certified taxi clients cannot be met because their maximum service capacity has been met.

Although issuance of Regional Transit Authority Identification cards increased to 2108, Elderly and Handicapped services has been actively working with the RTA accessibility committee to redesign the criteria and process by which a disabled person is certified for a discount fare. The public hearing on this matter held before the PUC was successful, but program implementation has been delayed because of problems in hearings in other transit districts.

BUREAU OF ENERGY CONSERVATION

Joe Johnson, Manager

Organizational Description

The Bureau of Energy Conservation is responsible for achieving efficient use of energy in City facilities. The three person staff of the Bureau manages the implementation of a variety of energy conservation programs. The operating budget for the Bureau is $627,712.

Overview:

Substantial progress has been made in meeting all the targets. The guidelines for purchasing energy efficient equipment were completed as well as the retrofit evaluation procedures. These guidelines will be used by the purchasing department and the City engineering staff respectively. The private sector fund raising effort realized $1.3 million, far exceeding the $100,000 target. These funds will be used to provide energy efficient retrofits in public housing.

Efforts to meet other targets were frustrated by certain external factors such as delays in contract certification and hiring needed personnel. Both the boiler testing program and the completion of the targeted number of final energy conservation plans were impacted by contract certification delays. HVAC and lighting improvements were initiated and reductions in natural gas usage were achieved. Quantification of the real benefits of these achievements has not yet been accomplished because of the absence of energy billing data.

The results of consultants audits enabled the Bureau to develop energy conservation plans or 30 facilities. It was the Bureau's intent to base the 30 plans on final energy audits. Contract certification problems led to delayed starting dates for the consultants. The 30 plans are therefore based upon 20 final and 10 draft energy reports. The use of draft reports will not have a material impact on developing plans.

Substantial progress in implementing lighting improvements projects has been made. The available electricians and laborers completed 30% of the work.

Work accomplished in both Lighting and HVAC improvements have resulted in approximately $100,000 in annualized savings. Additional savings have been made at the facilities but the savings are not yet quantifiable.

The status of additional projects supported by the Bureau is:

Mayor's Energy Management Committee: Work on a project to demonstrate energy benefits of commercial submetering continues. The Committee began preparing a request to the California PUC for a deviation to PG&E Rule 18 which prohibits commercial submetering. The Committee, PG&E and the Bureau held an energy management seminar for food service operators.

Private Sector Initiatives: The Association of Professional Energy Managers, which is sponsored by the Chamber of Commerce, PG&E, and the Bureau, has expanded its membership to private and governmental energy managers nationwide.

Public Education Energy Management Task Force: In April the Board of Supervisors gave final approval for a $996,000 supplemental appropriation for Unified and Community College School District energy programs. The projects, managed by the Bureau, include energy audits, training, and capital improvements. Work has begun on developing requests for proposals for auditing and training work.

Financing: The Bureau is continuing its efforts to develop third-party financing for energy conservation capital improvements. Third-parties have made initial project offers which are currently being closely evaluated.

Environmental Impact Review: Under the sponsorship of the Bureau, the energy group of the Department of City Planning is preparing guidelines for staff evaluation of energy conserving measures related to the discretionary review process. A handbook is also being drafted for use by developers attempting to meet the City's discretionary review and environmental impact review energy requirements. A proposal has been submitted to Oak Ridge Laboratory for provision of computer simulation and analysis of energy conservation measures recommended to developers during the City's discretionary review process. This work will be used to ensure that only the most cost-effective measures are recommended to developers.

IN MEMORIUM

As this report was being compiled, San Francisco Water Department General Manager and Chief Engineer Eugene Kelleher, who had retired in September after 34 years of municipal service to the City and County of San Francisco, died of cancer on October 10,1984.

"Gene" joined the Water Department as a junior engineer in 1950 and rose through the ranks, becoming General Manager and Chief Engineer in 1978.

He is survived by his wife, their daughters, his mother, and a host of friends in the Water Department and Public Utilities Commission who will sorely miss him

U.C. BERKELEY LIBRARIES
C123331590

Compiled and edited by:
Warren D. Hanson
Public Relations Officer

Designed by:
Tara Sullivan
Donna Huber

Typography by:
K&M Typesetting

P.U.C. Photography by:
William Owyang
Joshua Rotsten
Carmen Magana

Printing by:
P.U.C. Repro Graphics

INSTITUTE OF GOVERNMENTAL STUDIES LIBRARY
109 PHILOSOPHY HALL
UNIVERSITY OF CALIFORNIA
BERKELEY, CA 94720